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Vertical Crowdsourcing in Russia: Balancing Governance of Crowds and State–Citizen Partnership in Emergency Situations

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Crowdsourcing can be analyzed not only as a mechanism for empowerment, but also as operating a form of control over volunteers. This article applies Foucault's notion of governmentality to examine relations between traditional governmental institutions and users of crowdsourcing platforms in Russia. Through a comparative analysis of two emergency volunteering portals, Dobrovoletz, and Rynda.org, we describe "vertical crowdsourcing" as a strategy by traditional (government affiliated) actors to use crowdsourcing platforms to govern and control volunteers. This is in contrast to horizontally organized, or ground-up understandings of crowd-volunteering platforms. Two alternative discourses around the role of crowd members are further discussed: volunteers as actors who can contribute resources to the achievement of a common goal, and the crowd as a threat to central government that needs to be controlled.

Key Words: crowdsourcing, natural disasters, activity theory, governmentality, volunteering, Russia, crowds, emergency response

Background: The Emergence of Crowdsourcing in Russia

"Crowdsourcing should become the norm at all levels [of government]"—these are the words of the Russian president, Vladimir Putin, taken from an article he published as part of his third presidential campaign (Putin, 2012). The story of crowdsourcing in Russia, however, started far from the Kremlin. The first major crowdsourcing platforms, created by groups of activists in order to address social challenges, appeared in 2010. In August 2010, a project called the *Help Map for Victims of Russian Wildfires* was developed by a group of volunteers, relying on the Ushahidi online platform. Another project, Rosyama, was introduced in the same year by a leading Russian activist, Alexey Navalny, in order to map potholes on Russian roads and force local authorities to fix the problem. Later, Navalny and his fellows introduced a number of additional crowdsourcing platforms, including *Rospil* (monitoring corruption) and *RoskZhKH* (monitoring local infrastructure). Another project, Liza Alert, used an online platform to mobilize Internet users for the search and rescue of missing people.

The concept of crowdsourcing gained popularity in the Kremlin in 2011 during the presidential term of Dmitry Medvedev. A crowdsourced map of illegal casinos, Gdecasino.ru, introduced the first case where the government actively responded to a citizen crowdsourcing initiative. President Medvedev called the chief prosecutor and demanded the closure of all the illegal venues shown on the map, while criticizing the law enforcement service for lack of action in response to data coming from citizens (Litvinovich, 2011).

In most of the cases, however, the authorities preferred to initiate development of their own crowdsourcing projects, rather than collaborate with existing citizen-based platforms. Russian official institutions introduced new crowdsourcing initiatives at the municipal, regional, and state levels. For instance, Dmitry Medvedev was associated with the development of the first state-affiliated crowdsourcing project, *GdeDuraki.rf* ("Where are the fools?"), which was supposed to collect reports from Russian citizens about the misbehavior of bureaucrats. It became evident that the tendency of the Russian government was not to respond to problems raised by citizen-based crowdsourcing projects, but to develop their own platforms.

This polarization between citizen projects and state-affiliated platforms increased in 2011 and 2012, around the time of the parliamentary and presidential elections, when the citizen crowdsourcing platform *Karta Narusheniy* ("Map of Violations") was used for the monitoring of election violations and the crowdsourcing platform *Beliy Krug* ("White Circle") was used for the coordination of protests in Moscow (Asmolov, 2013). While political activists tried to use crowdsourcing applications to map falsifications of the elections and challenge the authorities, crowdsourcing was also introduced as part of a new political program for the reform of Russian governance. At the same time, the authorities tried to restrict independent crowdsourcing projects. For instance, the nongovernmental organization (NGO) Golos, which launched the Map of Violations, was prosecuted, and the platform itself was blocked by Distributed Denial of System attacks on the day of the parliamentary elections in December 2011.

This article examines the nature of the innovations introduced by traditional political institutions in response to challenges introduced by horizontal, bottom-up actors relying on digital technologies (Asmolov, 2013). It suggests an analysis of the development of crowdsourcing projects as part of the power relationship between grassroots formations and traditional institutions, relying on a case study of crowdsourcing for emergency response in Russia.

On the theoretical level, the article explores what role digital tools, and in particular crowdsourcing platforms, can play in the governance of the resources of the crowd and how the struggle around crowdsourcing as a technique of power can lead to different implications for the structure of crowdsourcing projects. On the practical level, it seeks to offer an analytical framework that can facilitate reflexivity around the development of crowdsourcing projects and discusses how this can contribute to a synergy between institutional and individual resources.

Defining Crowdsourcing

Since Howe introduced the concept of crowdsourcing in 2006, there have been debates about "what crowdsourcing is and is not—strictly speaking" (Brabham, 2013, p. xix). Scholars disagree about the identity of the actors that participate in crowdsourcing, the nature of the relationship between these actors, and what crowdsourcing can be used for. The definition by Howe (2006) conceptualizes crowdsourcing primarily as a new business model that allows increasing profit for firms relying the outsourcing of tasks to "undefined networks of people."

Brabham (2008, p. 75) suggests a broader approach and defines the purpose of crowdsourcing as an "online, distributed problem solving and production model." However, this definition still locates the understanding of crowdsourcing within a discussion about the efficiency, profit, and utilitarian aspects of information and communications technologies (ICTs). Brabham (2013) also challenges the definition of crowdsourcing as managed by institutional actors. He suggests that the locus of control over crowdsourcing can be either on the side of the organization or on the side of the community, although situations where "the organization is merely incidental to the work of the crowd" are not considered by Brabham (2013, p. 4) to be crowdsourcing.

The nature of the resources that are mobilized is also disputed. Some researchers suggest (relying on Surowiecki, 2005) that what is mobilized is the "wisdom of crowds." Others approach this as "crowd capital" (Prpic & Shukla, 2013). The discussion around the nature of the resources also differentiates between those used for simple mechanical tasks and those that can address complicated tasks (Petrick, Erickson, & Trauth, 2012), while simplistic

forms of participation have been conceptualized by Zuckerman (2014, pp. 158–159) as "thin participation."

Comprehensive attempts by Estelles-Arolas and Gonzalez-Ladron-de-Guevara (2012, p. 197) to analyze the majority of definitions have produced a notable generic conceptualization that emphasizes crowdsourcing as "online activity" with a variety of actors and a variety of methods. In addition, they emphasize the diversity of the contributions that can come from the crowd, including "work, money, knowledge, and/or experience." This definition also suggests that crowdsourcing "always entails mutual benefit." This, however, may be questioned by post-Marxist scholars who emphasize the role of crowdsourcing as a form of exploitation of digital labor that serves the interests of major commercial actors (Fuchs & Sevignani, 2013). That said, as Brabham (2008, p. 86) points out, "narratives from superstars in the crowd indicate more agency than Marxist critiques would allow." The optimistic view suggests that crowdsourcing empowers grassroots actors and horizontal projects, while allowing the mobilization of the "cognitive surplus" for good (Shirky, 2010). It situates crowdsourcing within a normative dimension, as a mechanism of mutual aid (Benkler, 2011) and global goodwill (Meier, 2013). Following the notion of mass self-communication (Castells, 2007), one can argue that crowdsourcing suggests a mechanism for mass self-mobilization.

The disagreements as to whether crowdsourcing is another form of exploitation or a technological innovation that empowers the users of digital networks can be situated in a historical context. Efforts to mobilize the crowd are not a new thing. The state, as well as other actors, has always been interested in harnessing the power of volunteers and/or in forcing people to "volunteer." A soldier of the Red Army points his finger toward the viewer on the famous poster from 1920 by Dmitriy Orlov captioned "Have you registered as a volunteer?" (Figure 1). In 2010, the same image was adopted in order to call volunteers to participate in response to wildfires through a crowdsourcing platform, the "Help Map."[1] The figure of a male soldier was replaced by that of a woman, with the same message and a link to the platform that facilitated citizen-based emergency response (Figure 1). The institutional mobilizer was replaced by an independent citizen engaged in bottom-up mobilization.

Figure 1: Russian volunteering posters from 1920 and 2010.

While control over the crowd has always been a part of the political agenda, the increasing role of ICTs can both provide new tools for harnessing the crowd and challenge the capacity of institutional actors to take the major role in the engagement of crowds. One can argue that digital mediation diminishes the requirement for institutional structures in

order to mobilize crowds in light of what Bennett and Segerberg (2012) conceptualize as "connective action."

In light of what has been discussed above, the crowdsourcing definition adopted in this article seeks to address a number of challenges. First, it tries to avoid limiting the scope of actors, goals, or the structure of relationships and does not favor the role of any specific actor in this relationship. Second, it makes an effort to avoid focusing solely on the utilitarian aspects of crowdsourcing and allow an examination of power relationships.

Following the conceptualization of the resources that can be mobilized by relying on the mediation of digital platforms as crowd capital (Prpic & Shukla, 2013), this article approaches crowdsourcing as the digitally mediated mobilization of resources of a networked crowd in order to achieve a particular goal. The resources that can be mobilized through crowdsourcing include sensor resources (e.g., for the purpose of monitoring and data collection), analytical resources (e.g., data mining), professional resources (relying on the specific expertise of an individual), physical resources (relying on the physical power of the individual), material resources (e.g., specific things/goods), and financial resources (e.g., in the case of crowdfunding). The scope of this discussion is also limited to the mobilization of volunteer resources, with no financial reward, meaning that crowdsourcing is approached as the digital platform-mediated mobilization of volunteers.

A significant body of literature discusses the contribution of crowdsourcing to disaster response (Meier & Diane, 2009; Ziemke, 2012). The above definition allows us to argue that in the case of an emergency situation, a crowdsourcing application can be used for the mobilization of a variety of resources, from crisis mapping—which suggests the engagement of sensor resources (for data collection) and analytical resources (for data mining, curation, geolocation, and verification of data) as well as some expert resources (e.g., geographic information system)—to the mobilization of material power including humanitarian aid, the coordination of emergency operations, as well as the actual response on the ground, including fighting fires and participating in cleanup operations.

This definition allows us to address two elements that require critical examination. The first is the subject of crowdsourcing, which means the individuals that constitute the networked crowd. The second is the nature of the resources mobilized through digitally mediated sourcing. Accordingly, the questions asked are: who can benefit from crowdsourcing, whose interests does it serve or threaten, as well as whether the emergence of crowdsourcing tools changes the balance of power relationships in specific fields.

Theoretical Framework: Crowdsourcing as the Governance of Crowds

The purpose of the theoretical framework presented here is to allow the critical investigation of crowdsourcing within a context of power relationships between state-affiliated institutional actors, and actors that have no affiliation with the state. The article argues that a critical examination requires us to divide the concept of crowdsourcing into two parts: the "crowd" and the "sourcing." The examination of the role of digital platforms in crowdsourcing is concerned with the "crowd" (as the construction of a "subject") and with "sourcing" as a process of mobilization of the crowd's resources, relying on mediation by ICTs. In this context, the purpose of critical analysis is to explore how the crowd is constituted through crowdsourcing techniques and what resources are mobilized by relying on digital mediation.

In order to address this analytical goal, the crowd is conceptualized here as a subject of governance, relying on the notion of governmentality (Foucault, 1991). It can be argued that the development of information technologies (ITs) has contributed to the transformation of populations into networked crowds that are not bounded by geographical location. This has

introduced new challenges for the governance of populations. The emergence of a networked crowd as a resource, and accordingly as a subject for regulation, suggests a necessity for the "governance of crowds."

Relying on Foucault's notion of power and governance, we can therefore approach crowdsourcing as a technique of power that structures the "possible field of action of others" (Foucault, 1982, pp. 220–221). This structuring, however, can take place in different contexts of power relationships, with different degrees of individual freedom. While exploring how crowdsourcing platforms constitute the subject of crowdsourcing and how the resources of the crowd are managed, one may distinguish between crowdsourcing as a technology of self-governance and crowdsourcing as a technology for the governance of others.

According to Foucault (2007, 95), governmentality can be conceptualized as the state's "supervision and control over its inhabitants, wealth, and the conduct of all and each, as attentive as that of a father's over his household and goods." He argues that the main subject of a power relationship is the possibilities of action by other people: "To govern, in this sense, is to structure the possible field of action of others" (Foucault, 1982, p. 221). According to Foucault (1993, pp. 203 204), governance does not necessarily mean a form of coercion or domination:

> (. . .) governing people is not a way to force people to do what the governor wants; it is always a versatile equilibrium with complementarity and conflicts between techniques which assure coercion and processes through which the self is constructed or modified by himself.

Foucault (1988, p. 19) identifies three modes of power relationship that suggest various degrees of the subject's capacity to take a part in defining his/her own conduct, from the "strategic games between liberties" that give more space to the manifestation of agency through "governmental technologies" to "states of domination" that suggest significant forms of restriction of the subject's freedoms. This article suggests an analysis of crowdsourcing relying on a notion of governance as a technology of power applied by institutional, state-affiliated actors in order to govern a crowd and its resources. It examines whether institutional actors take crowdsourcing from a state of strategic games toward a state of governance, and possibly a state of domination.

Foucault (1991, p. 104) argues that "a governmental state, [is] essentially defined no longer in terms of its territoriality, of its surface area, but in terms of the mass of its population with its volume and density (. . .)." He links the notion of governmentality to the shift from protection of territorial sovereignty to the governance of subjects living within a territory. One can argue that the development of ICTs has contributed to the transformation of populations into networked crowds that are not bounded by geographical location.[2] This has introduced new challenges for the governance of populations, due to the increased gap between populations and territories. The emergence of a networked crowd as a resource, and accordingly as a subject for regulation, suggests a necessity for the "governance of crowds," while the emergence of digitally mediated sourcing practices has focused governance efforts on the resources of the crowd, including the governance of the "cognitive surplus" (Shirky, 2010), as well as of digitally mediated volunteering.

Finally, relying on Foucault's notion of power and governance, crowdsourcing can be understood as a technology of power that structures the possible field of action of others. This structuring, however, can take place in different contexts of power relationships, either as a part of a strategic game around the mobilization of crowd resources or as a part of the governance of crowds and in particular the governance of networked volunteers, which can also potentially lead to a state of domination. While exploring how crowdsourcing platforms constitute the subject of crowdsourcing whose resources can be mobilized, one may

distinguish between crowdsourcing as a technology of self-governance and as a technology for the governance of others.

Conceptual Framework: Mapping the Discourse of Activity in Crowdsourcing Tools

Despite being a productive theoretical framework, applying the concept of governmentality to the analysis of crowdsourcing presents a number of methodological challenges. Although Foucault discusses governmental technologies, his notion of technologies is vague and he does not discuss the role of ICTs. In addition, the notion of how the subject is governed relies on a number of concepts, including those of security, knowledge, and political economy, but does not suggest a specific methodological apparatus. Most of Foucault's analysis of the construction of the subject relies on the investigation of discourses and is focused in particular on knowledge, classification, language, and semiotic systems, but not on ITs. Accordingly, what is required is a conceptual apparatus that allows us to explore how crowdsourcing tools constitute the crowd and govern its resources.

The conceptual framework used here seeks to allow an investigation of what is governed and how it is governed. For this purpose, we turn to the notion, developed as a part of cultural historical activity theory (CHAT), of a tool-mediated, object-oriented activity and suggest focusing on activity as the major level of analysis (Leontiev, 1978). The basic assumption of CHAT is that the relationship of individuals with their surrounding environment is always mediated through artifacts. This notion was introduced by Lev Vygotsky (1978) through his depiction of a triangle in which the actions of a subject are always directed to a particular object while being mediated through an artifact. Kaptelinin and Nardi (2006, p. 56) argue that "the structure of a tool itself, as well as learning how to use a tool, changes the structure of human interaction with the world."

Accordingly, the role of crowdsourcing platforms in structuring the action of digital users can be approached as the mediation of an object-oriented activity that relies on a digital artifact. In the case of crowdsourcing platforms for emergency response, the subject is the volunteer and the object is the response to a disaster. The mobilization of the crowd's resources is addressed as an activity within the context of a subject–object relationship, for example, the users of a mobile application (subject) who provide information about the disaster (object), or Internet users (subject) who go to the area of the disaster in order to fight the fire (object). Engestrom (1987) has suggested a model that identifies a number of additional components of the activity system, including rules, community, and division of labor. The conceptual framework for the investigation of crowdsourcing platforms presented here suggests conceptualizing these platforms as artifacts that mediate activity and give rise to activity systems (Figure 2).

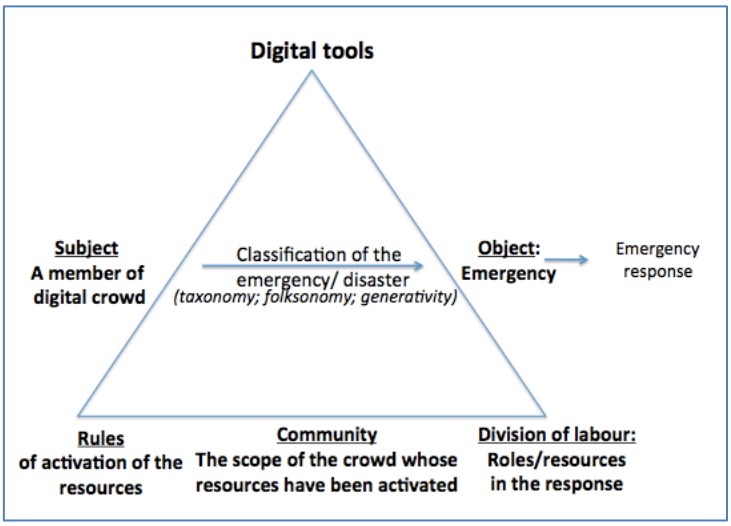

Figure 2. A Conceptual Framework for Analyzing Crowdsourcing Tools as Activity Systems, Relying on Engestrom's Model (1987).

Figure 2 shows how Engestrom's model can be applied to the analysis of a crowdsourcing tool as a mediated activity system:

- **Subject–object relationships** as reflected through the metadata and structure of classification of the object: what resources need to be activated by the subject as a part of the relationship with the object.
- **Rules of activation:** who is allowed to activate the resources of the subjects.
- **Community:** what are the boundaries of the activated community (bounded/unbounded) and what are the membership requirements.
- **Division of labor:** the structure of differentiation between the resources mobilized and the degree of integration between subjects that share various resources.

Accordingly, applying CHAT allows us to argue that the activity of crowds is governed through mediation by digital platforms. Crowdsourcing platforms give rise to a specific type of activity system. Applying the notion of an activity system to the analysis of crowdsourcing platforms allows us to identify the "discourse of activity" mediated through the platform that manifests the relationship of power around the mobilization of the crowd's resources. This should provide methodological tools for exploring how a crowdsourcing platform structures the field of action of others, as well as how it constitutes the subject of crowdsourcing.

Framing the discussion of crowdsourcing as a technique of power that regulates the activity of crowds allows crowdsourcing platforms to be approached as a field of struggle where we may expect that institutional actors will use digital tools as a disciplinary framework for activity, while informal actors will try to use this opportunity to develop independent activity systems. Interviewing the developers and managers of a specific platform allows us to follow the development of the system, and the "genealogy of activity" with a focus on contradictions as a part of the development of the system. The following case studies seek to map the structure of activity systems that are mediated through digital tools and that aim to mobilize the resources of the crowd in emergency situations. This is followed by a discussion of the structure of activity systems as different forms of the digitally mediated "governance of crowds."

Case Study: Crowd Mobilization for Emergency Response

General Overview

The field of crowdsourcing projects for emergency response has a dual nature. On the one hand, in a case of natural disaster the major purpose shared by the majority of actors is responding to the disaster, including saving human lives and recovery. In the case of Russia, the volunteers organized spontaneously around crowdsourcing platforms and social media played a significant role in a struggle against wildfires in 2010 and floods in 2011 (Asmolov, 2014a). On the other hand, as pointed out by Hewitt (1998, p. 90), one of the major concerns of state-affiliated actors can be related to the restoration of "all forms of regulation and enforcement of state power" disrupted by the power of nature. Pelling and Dill (2006) suggest that disasters create a stress test for political systems, and that state actors may approach spontaneous, citizen-based self-organization as a threat and respond to it with repression.

The central case presented here is the government-affiliated Dobrovoletz.rf platform.[3,4] The portal was managed by RosSoyuzSpas, an organization of retired emergency response professionals affiliated with the Russian Ministry of Emergency Situations in order to engage volunteers in emergency response. It will be compared here with the citizen-based emergency response crowdsourcing platform Virtual Rynda: The Atlas of Maps (Rynda.org), a volunteering portal developed by an independent group of activists with the support of the same IT group that developed Dobrovoletz.rf.

In the center of this comparative analysis, stand the two versions of Dobrovoletz.rf (the development concept and the final versions) and the nature of the transition from the initial project to the final version that was launched online. In light of this focus, the secondary case study (the citizen-led Rynda.org) has a supplementary role in helping to elucidate the nature of the platform's transition and presenting an example of a platform that is closer to the initial concept of Dobrovoletz.rf, which was never implemented. Accordingly, the discussion of the Rynda.org project is less comprehensive.

The analysis relies on two data sets collected as a part of a doctoral project undertaken by the author on the role of digital platforms in emergency response. The first data set is drawn from 35 semi-structured interviews conducted in 2013 with digital volunteers, official representatives of emergency organizations, and developers of emergency-related platforms in Russia. The second set is a database, built in 2013, of 20 emergency-related digital platforms in Russia. The data for this article addresses two specific projects that were represented in the database and the interviews. In the case of Dobrovoletz.rf, the interviews allow us to follow the shift from the initial (open and horizontal) concept of the platform to the final (closed and vertical) version of the platform implemented online. This is conceptualized as the "genealogy of activity."

A coding framework informed by activity theory (Figure 2) was developed in order to conduct a thematic analysis of the structure of activity systems in both case studies and to identify the discourses of activity that are mediated. In addition, a discourse analysis of interviews was conducted in order to explore the discourses around the role of volunteers in emergency situations and the potential value of the resources of the Internet users.

The Structure of the Dobrovoletz Platform

According to a statement on Dobrovoletz.rf, "The Dobrovoletz portal is a joint interactive information resource that seeks to unite all 'dobrovoltzy' and volunteers in Russia." The front page of the Dobrovoletz portal suggests an appeal—"Become a volunteer"—with a link for registering as a member of the volunteer community, as well as two categories of updates, "Events" and "Humanitarian Actions" and general news (Figure 3).

Figure 3: The online version of the front page of Dobrovoletz.rf. (June 2015)

The homepage explains that once a user registers and identifies their skills, as well as preferences for volunteering, they will receive invitations to participate in volunteering programs and humanitarian operations coordinated in any region of Russia. The public-facing news is of a general nature, with a general description of what has happened and the location of the event on the map; the only way to get more information about specific activities of the volunteer community is to join. This requires the provision of information about the skills, certification, physical condition, and availability of the volunteer. If the potential volunteer has official certification as a rescuer or paramedic, they receive the status of professional rescuer, following a process of verification. In other cases, the volunteer receives the status of general volunteer.

Once the volunteer is approved they have access, depending on their authorization, to the internal part of the website. The internal classification includes type of participant and list of events, as well as humanitarian actions. The pages in the “events” and “humanitarian actions” categories have no specific structure and can be filled with any type of text (although these pages are generally used for informing users about recent updates). The internal part of the site provides more detailed information about the emergency situations as well as about the people taking part in emergency response, the resources mobilized, and specific activities. It also allows responders to share information about their participation, including updates and photos from on the ground. That said, it is not used for the mediation of activity around emergency response, but only for providing information about activities that have already taken place. The structure of the internal section of the website supports sharing information with the registered users, but does not include specific categories for engaging members in emergency response. One could suggest that the internal structure of the website resembles the structure of traditional command and control systems, with lists of incidents and available resources.

The structure of the website can be summarized in terms of three different audiences. The general public has access to the external page, with general news about emergencies and humanitarian events, and an option for registration as a volunteer. Logged-in members have access to more detailed and specific information about events and people associated with a particular emergency response. Moderators and administrators can contribute data, share requests, or directly activate members around a particular event, relying on information from

the registration database. An ordinary member can contribute information about themselves and follow news and activities, but their capacity to engage is dependent on the website's administrators.

Actual Usage

Interviewee D[5], a representative of RosSoyuzSpas, the organization of retired emergency response professionals which manages the Dobrovoletz website, argued that the system allows them to reach out to all the registered users, using SMS, email, or Skype, with any type of information. The system divides volunteers into three groups: members of RosSoyuzSpas, professional rescuers/ certified volunteers, and general volunteers with no specific certification or skills. The task a person can be allocated depends on their skills and which group they belong to. The mobilization of volunteers through the platform takes place by decision of the executive committee of RosSoyuzSpas. Interviewee D suggested that the role of the platform is defined in accordance with Russian law: "The law says who and when should respond and the platform is embedded as a citizen rescue formation."

Dobrovoletz.rf was used in a response to floods in the Amur area in the Russian Far East in 2013. According to the interviews conducted, the platform was primarily used as an internal system for the exchange of messages and the sharing of photos, summary reports and general information. Interviewee D emphasized that all the people involved were "not just volunteers," but "our people, who are prepared, trained, certified, and have all the right equipment." According to Interviewee A,[6] who initially developed the concept of Dobrovoletz.rf, during the floods the website was used solely by RosSoyuzSpas volunteers as an internal platform, although the initial idea was that the platform would be used not by a specific organization, but by all types of volunteers in Russia.

Genealogy of Activity

The interviews allow us to map the major contradictions in the development of the platform. The major actors around the development of the platform included a professional firefighter and activist who developed the initial idea of the platform (Interviewee A), software developers from an IT firm that developed the platform (Interviewees B and C), and the state-affiliated NGO "RosSoyuzSpas" that expressed its interest in supporting and administrating the platform (represented by Interviewee D).

Interviewee A suggested creating a volunteer portal that would allow a community to be established not only for professionals but also for a more general group of volunteers. The platform was to be focused on the facilitation of a transparent process around specific needs. It was supposed to provide an infrastructure for horizontal connections and to allow users to create their own initiatives:

> The idea was that people would be able to create groups according to their volunteer interests while being able to define their personal skills and competencies for themselves. Accordingly, people could collaborate horizontally and independently in the groups that they would create relying on the platform, but they also could ask for help from other groups. (Interviewee A)

The purpose of Dobrovoletz was therefore to enable a full picture of the human resources available for a response, and to manage those resources by relying on information about people's skills, reputation, location, and availability.

Following the development of the idea, RosSoyuzSpas, a major emergency response NGO that relies on volunteers, expressed an interest in the platform as a tool to improve volunteers' engagement and management. RosSoyuzSpas and the IT group agreed on a

partnership in order to implement the concept of Dobrovoletz. rf. Interviewee C[7] argued that he had opposed the idea that the platform should be associated with a specific organization, while the initial plan had been to develop an environment where any group would have the power to manage itself. At the same time, the development of this environment was supposed to be supported by RosSoyuzSpas, which could collaborate with these groups if needed.

However, the developers and the author of the idea argued that, from the point of view of RosSoyuzSpas, the major purpose of Dobrovoletz was to create a command and control system for a distributed network of certified volunteers. According to Interviewee C, "RosSoyuzSpas decided that if they can harness everything, they won't give it to anyone else. (. . .) What they created is not volunteering, but their own small military."

According to the author of the concept (Interviewee A), the involvement of RosSoyuzSpas led to the "detachment of horizontal connections between the groups." According to him, "RosSoyuzSpas wanted to have total control over the process and prevent the collaboration of nonsystem volunteers among them-selves." Interviewee A argued that the reasons for the shift in the purpose of the platform was a fear of nonsystem volunteers as an entity that could not be controlled, as well as concerns that nonsystem volunteers might be more efficient than traditional organizations.

One of the points of debate was also the degree of transparency around the information on Dobrovoletz. According to one of the developers (Interviewee C), he had demanded transparency around activity facilitated through the platform, including information about who had asked for help, what help was required, and who had offered their help:

> Almost all volunteers say that they are ready to help, but they want it to be transparent. They don't want to be just people that get tasks and do the work that other people get paid for, but they want the Dobrovoletz portal to be precise, clear and transparent in order to understand the tasks on our agenda, our contribution, and why it's needed. But that element is missing. (Interviewee C)

According to Interviewee D, the representative of RosSoyuzSpas, they had considered making the platform more transparent, but then decided to cease these efforts because information from the area of an emergency could be used by the mass media. As a result, it was decided that the only element of the activities of the platform to be visible to the public would be general news.

One of the developers of the platform (Interviewee B)[8] suggested that, while the declared purpose of the platform was the integration of professional and spontaneous volunteering resources around an emergency situation, once RosSoyuzSpas started to play a central role in the development of the platform its real purpose became to create a technological component of a legal framework that sought to regulate volunteering in Russia. According to a representative of RosSoyuzSpas, the system had been created in order to allow the monitoring of an individual volunteer's activity:

> Sooner or later the 'Law of Volunteering' will be approved, and then we will have to register all volunteering activities. Accordingly, we thought, how should we do this? This personal card [for volunteers] is going to rely on some type of memory card and will use card readers, or we can do it on paper as a resume, or make a passport for volunteering, and eventually we decided to go with the idea of the platform.[9] (Interviewee D)

One of the developers (Interviewee C) concluded: "Our initial idea was to make this platform as a tool for the integration of volunteer resources, but you see, it didn't work. There is zero integration."

Clash of Discourses and Regimes of Control

The interviews with representatives of state-affiliated emergency response organizations allow us to identify a number of discourses around the role of independent volunteers, who can be considered as a subject of the activity system mediated through the platform. Interviewee A differentiated between the two main types of volunteer in Russia—system volunteers, who are affiliated with traditional emergency response institutes, and nonsystem volunteers—various groups of citizens who self-organize in order to respond to emergencies. Some of the representatives of official emergency services argue that the difference can be expressed through language, pointing out the difference between two synonyms: "dobrovoletz" (a word with Russian origins) and "volontyor" (a Russian word with Latin origins):

> 'Dobrovoletz' is a person who is taken into account. He is registered according to the law. 'Voluntyor' – it's like I will go and be a volunteer. The person can be whoever he is – a doctor, a policeman. But 'dobrovoletz' is not like that – he will only follow orders. (Interviewee F)[10]

One of the major discourses to be found in the way that the system volunteers talk about nonsystem activists concerns the degree of expertise: "I don't want to offend these people and hurt their feeling but a yard keeper cannot work in an operating room and carry out surgery even if he wants to" (Interviewee D). Interviewee D further argued that the involvement of nonsystem volunteers should be limited to specific tasks that do not require training and skills: "They can manage information support well, giving out leaflets, talking to people."

Another type of discourse suggests that outside interests drive nonsystem volunteers. Interviewee D suggested the term "PR-volunteer" to describe people who want to use emergency situations to promote themselves and improve their own image through emergency-related activity on social networks, as well as to receive political benefits:

> Once something happens some kinds of civic activist come to the area, start posting photos on Facebook: 'we are in the ruins, we are with an old lady, we are there.' (. . .) They get more followers and use the emergency to expand their audience. (Interviewee D)

Accordingly, Interviewee D argued that professionalism means keeping a distance from politics: "Those people who are involved in politics can do whatever they want, and do their political stuff while collecting points among the ruins, but that is not our story."

At the same time, the volunteers expressed their lack of trust in and lack of desire to collaborate with platforms like Dobrovoletz that are affiliated with official emergency response institutions. Interviewee E,[11] one of the coordinators of an online community of volunteer firefighters, explained why her fellow volunteers hesitated to engage with state-affiliated initiatives:

> Once you are on the register, you have been counted, you feel committed. But those volunteers that I have been in touch with give a very high value to their feeling of freedom: I go if I want; I won't go if I don't want. (Interviewee E)

Interviewee E explained that volunteers will not collaborate with state-affiliated platforms, as these initiatives do not allow them to participate in firefighting, while they are interested in taking an active role in response to an emergency.

Virtual Rynda: The Atlas of Help

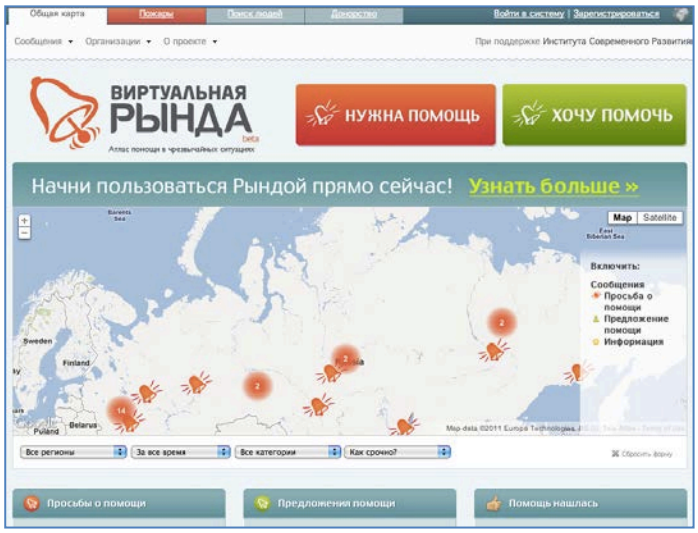

Figure 4. The Atlas of Help homepage, March 2013.

The IT company that developed Dobrovoletz also supported the development of another platform aimed at facilitating the engagement of volunteers. Virtual Rynda: The Atlas of Help (Rynda.org) was developed as the second stage of the Help Map for Victims of Russian Fires (Russian-fires.ru) project (2010), which relied on the Ushahidi platform (Figure 4).[12]

The Help Map sought to support the efficient allocation of resources through providing an infrastructure for direct horizontal communication between people in need and those willing to help them (Asmolov, 2014a). The idea of the Atlas of Help was to expand the facilitation of resources between those in need and those interested in helping beyond the situations of natural disasters. Anyone could post a request for help or an offer to share a particular resource. The service helped to create a match between the request and the most relevant available resources (Asmolov, 2014b). Unlike in the case of Dobrovoletz, the facilitation of help took place in an open and transparent mode where information was available to anyone. Whether or not to take part in the response to a particular request was a decision for users, and not for an administrator. The role of moderators was not the top-down activation of users, but to support the efficiency of horizontal communication. Access to information did not require registration.

According to one of the developers (Interviewee B), there were substantial differences between the ways the two platforms engaged volunteers. Dobrovoletz was focused on the creation of groups of rescuers around specific events and on adding volunteers to these groups in case they were required. However,

> The purpose of Rynda was a provision of targeted direct help. I visit the website and say: 'I have a problem of clothing, I don't have enough clothes for my children.' Anyone who has clothes can see this and help me. (Interviewee B)

Both Dobrovoletz and Rynda.org were developed in order to engage volunteers, however, the ways in which the two platforms have achieved this goal have differed substantially. In the case of Dobrovoletz, information is restricted, access to information is associated with the type of membership within the community, and the decision to engage volunteers is of a top-down nature and made by the leaders of RosSoyuzSpas. In the case of Rynda, the structure of the platform and of information about needs is transparent, access does not require any form of membership and users decide for themselves if they are interested in responding to a specific request. In addition, in the case of Dobrovoletz, needs are also defined solely by the administrator, while in the case of Rynda the requests come from the users of the platform.

In other words, while Dobrovoletz suggests a top-down, hierarchical system of engagement in emergency response with strict requirements concerning what is needed in order to become a member of the community, Rynda offers an open system of engagement that relies on the facilitation of horizontal, peer-to-peer connections around the provision of help, participation doesn't require member-ship, any specific skill set or verification, and the terms of participation are defined by the users.

Analysis

Both projects under investigation, Dobrovoletz and Rynda.org, are approached here as artifacts that mediate the activity of volunteers around emergency response and that give rise to a particular type of activity system around emergency situations. The analysis demonstrates how the structure of the activity system mediated through the online platform regulates the activity of the subject, who in this case is the volunteer. The data collected in the interviews with the developers and the administrators of Dobrovoletz demonstrates the shift in the purpose and structure of the platform between the initial concept and the actual online implementation of the project. Applying an activity framework (Engestrom, 1987) allows us to conceptualize the transformation of the idea of the project as the transformation of an activity system:

- **Subject–Object relationship:** In the case of Dobrovoletz, the subjects are the volunteers (the users of the platform), while the object is the response to disaster or any type of purpose that requires volunteer resources. The relationship between subject and object can be described in terms of the capacity of the subject to define the object of their activity or at least to choose the object within a particular activity system. The initial idea for Dobrovoletz.rf suggested that the object of activity would be defined by relying on the interests of independent groups that used the platform, and that this could be launched as a grassroots initiative. Eventually, in the case of Dobrovoletz, the objects came to be defined in a top-down manner by the platform administrators, while the subject had no freedom to select a specific object from the range of objects within the activity system, or to have any impact on the definition of the object.
- **Community:** The initial idea for Dobrovoletz.rf suggested that the platform would provide a framework for an unbounded open community with many independent volunteering groups, where the individual activists would launch the groups. The capacity to open a new group was not restricted. The platform was supposed to be used by professional responders to engage with a wide community of independent groups in order to integrate system and non-system resources as part of emergency response. Eventually, however, the platform came to suggest a community that relies on three groups arranged hierarchically: members of RosSoyuzSpas, certified rescuer-volunteers, and general volunteers. There was no option to open any additional groups. The community could now be described as a bounded group of approved users managed in a top-down manner by the administrators.
- **Division of labor:** The initial idea of the Dobrovoletz.rf project suggested that any group could define their own set of objects according to their own interests. Accordingly, the mobilization of resources around these objects would take place within these independent groups among their own members, and could be described as flexible and bottom-up, relying on the interests of the subjects in participating in a particular task. That said, the major contribution of the platform was supposed to be the provision of a framework that would allow the integration of the skilled and unskilled resources of system and non-system volunteers into one

activity system in response to emergency, and define a division of labor between various groups around the same object. Eventually, the platform came to suggest a model where the administrator would define the division of labor in a top-down manner, while the tasks of uncertified volunteers became limited ("thin," to use Zuckerman's (2014) term).

- **Rules:** One aspect of the rules governing crowdsourcing platforms concerns the question of who is allowed to engage and when, or, to use activity theory terminology, the activating of volunteers. In the case of the initial Dobrovoletz project, we could see a high degree of flexibility around the terms of activation, where any group could use the platform in order to engage their members independently, without any request to and/or authorization from the administrators of the platform. The Dobrovoletz project in its current form suggests a platform that allows the activation of members only by decision of the administrator.

What is also evident from the data is the substantial difference between the degree of *transparency* around objects, rules, information about members of community, and division of labor in the two versions of the project. The initial project suggested a high degree of transparency, while the final version has restricted access to most information.

The initial version of Dobrovoletz and the final version administered online by RosSoyuzSpas therefore suggest two substantially different activity systems, while having the same subject (volunteers) and the same object (emergency response and humanitarian aid). To some extent, the structure of the activity system of the first version of Dobrovoletz recalls the structure of activity of Rynda.org, which offered full transparency and allowed the subject to define/ choose objects of activity, as well as suggesting a flexible division of labor, an unbounded community, and rules allowing the self-activation of the subject around a specific object.

That said, the initial versions of Dobrovoletz and Rynda.org also differed substantially. The core idea of Dobrovoletz was the development of a community that could later be activated. The difference between the two versions of Dobrovoletz.rf; however, lay in whether these were to be independent communities that can be initiated by any user of the platform or communities bounded, defined and approved by the administrator. Unlike Dobrovoletz, Virtual Rynda suggested a direct mediation of activity through the publication of a request for help that could be addressed by individual users (Table 1).

Table 1. Comparison of the Structure of the Crowdsourcing Platforms as Activity Systems.

	Dobrovoletz.rf (initial version)	**Dobrovoletz.rf (final version)**	**Rynda.org**
Subject–object relationship	The object is defined by independent groups of subjects	The object is defined by the administrators of the platform	The object is defined by the subject
Rules	Flexible: Independent groups can self- activate	Strict: Only platform administrator can activate	Flexible: Self-activation by the subjects
Community	Bottom-up bounded: Every independent group defines its own boundaries	Top-down bounded: The boundaries of community are defined/ classified by administrators	Unbounded: The community relies on independent subjects
Division of labor	Bottom-up: Every group defines the structure of its own division of labor	Top-down: The division of labor is defined by the administrators	Bottom-up: The division of labor relies on subjects'

			self-organization

An integration of CHAT with the notion of governmentality allows us to bridge theoretical gaps and achieve a better understanding of the role of digital tools in the governance of crowds. The analysis presented here suggests how the system initially proposed by an emergency activist (Interviewee A) as a mechanism for the mobilization of resources through the facilitation of horizontal connections was transformed into a system mediating the top-down, vertical mobilization of resources by a specific actor who controls the system.

This investigation demonstrates the tension between crowdsourcing applications as platforms that mediate the efficient allocation and integration of resources, and platforms that mediate control over resources and that eventually suggest a system of command and control over the crowd's resource. While one can question whether a hierarchical structure for harnessing crowd resources can still be conceptualized as crowdsourcing, the definition of crowdsourcing adopted in this article suggests that these types of projects should still be considered as a digitally mediated mobilization of the crowd's resources around a specific purpose.

In light of the argument that the structure of mediated activity reflects a particular state of power relationship, it can be argued that crowdsourcing platforms mediate different discourses of activity around the volunteer as a subject and the crowd as a community of subjects within a specific activity system. The first discourse can be conceptualized as a discourse of "optimization of resource mobilization," relying on the crowd. It constitutes a crowd as a resource that can support the achievement of a particular object by relying on the use of a digital platform. The second discourse is one that situates the role of the platform as a tool for "control of the crowd." In this case, the subject and the crowd constitute a threat to state-affiliated institutions and have to be controlled.

The case studies presented here illustrate how crowdsourcing platforms govern in different ways the "possibilities of action by other people" as conceptualized by Foucault. However, we can identify different models of power relationship around the digitally mediated governance of crowds. On the one hand, crowdsourcing platforms allow the subject to "construct the self" through active participation in terms of how the "resource of the self" is used. On the other hand, we can see how the institutional actors affiliated with state actors are seeking to use crowdsourcing platforms as a technique of power to regulate and control the self and the crowd as a resource. Relying on the Foucauldian differentiation between different modes of power, the genealogy of Dobrovoletz can therefore be conceptualized as a transition from a "game between liberties" around what is the most efficient form of resources mobilization, toward a situation of domination where crowdsourcing tools are used to command and control the crowd's resources.

We argue here that a technology of governance that suggests the activity discourse of "control over resources" can be conceptualized as vertical crowdsourcing. A notion of vertical crowdsourcing proposes that the structure of activity is defined by the institutional actor, with no space for the influence of agency on the system's structure. In this case the purpose of the system, the boundaries, the rules, the right to participate in the community, and the division of labor are dictated by the agent who created the platform. In many cases the purpose of this type of activity system is primarily to control the activity of the crowd and to neutralize the potential for independent forms of activity.

The evidence presented here suggests that the main purpose of tools like Dobrovoletz is not the engagement of people in response to an emergency or collaboration between the emergency services and spontaneous volunteers, but primarily the controlling of volunteer resources. Lack of transparency around the protocol of activation and a vertical hierarchical

structure of activation suggest that this platform is allowing the institutionalization of resources without necessarily using those resources, while the registered volunteers have no control over when they can be activated or over the form of their engagement.

One can suggest that in this case, the actual intention of the platform is the *mediation of the passivity* of those who are not affiliated with the state-affiliated institutions. On the one hand, the platform is created as a tool for the mediation of activity of volunteers in response to disaster, including citizens who have no official affiliation with the emergency response organizations. On the other hand, the vertical structure allows the activation of particular resources (e.g., unaffiliated nonsystem volunteers) to be avoided within the top-down structure of the division of labor. As a consequence, the volunteers are registered as a part of the system, but they don't play any role in response to the emergency and remain passive. For instance, when the floods happened in eastern Russia in 2013, the platform was used by members of RosSoyuzSpas simply as an internal management tool, while nonsystem volunteers remained beyond the range of activation.

The mediation of "thin participation" (Zuckerman, 2014)—that is, being able to suggest simple tasks without being given an opportunity for participation in more meaningful activities—can also be approached as a form of vertical division of labor that seeks to remove non-system volunteers from the core of activity.

To conclude, we identify three elements of "vertical crowdsourcing":

- Top-down definition of the structure and purpose of crowdsourcing applications.
- Embedded passivity: limiting the scope of forms of participation through the design of the structure of the application.
- Non-transparency of activity: the structure of participation in the crowdsourcing application is not transparent to the user, who has no control over the form of their engagement.

The idea of "vertical crowdsourcing" resembles what has been called "Putin's vertical of power," where the range of the vertical extends from various layers of government to the citizens. As a political strategy, vertical crowdsourcing seeks to achieve three major goals:

1. To harness crowd resources in order to achieve the state's goals.
2. To neutralize independent crowdsourcing resources, prevent self-organization and the emergence of independent collective action.
3. To create a semblance of participation, a facade of transparency and accountability.

All that said, one could suggest that a vertical structure of activation of spontaneous volunteers, in the case of volunteering portals, creates contradictions between the form of management and the nature of the resource, which leads to the emergence of alternative activity systems.

The interviews conducted with emergency response officials in Russia demonstrate that, from the state's perspective, the emergence of "non-system" volunteers as powerful actors has been approached as a threat to the image of state institutions, as well as to the capacity of the state to keep monopoly control over crisis situations. Accordingly, people linked to traditional institutional actors approach volunteers not as a resource, but primarily as a threat that needs to be regulated, which is conceptualized as a discourse of control over crowd resources. On the other hand, the discourses of volunteers concerning the emergency services emphasize the lack of trust in the state-affiliated actors. In this situation, the digital tools created by volunteers seek to mediate an independent activity system that will be freed of the control of institutional actors and able to facilitate the activation of resources without state regulation.

Conclusion

Following the introduction of the crowdsourcing concept by Howe in 2006, the emergence of crowdsourcing practices and platforms has been approached by scholars with mixed assessments of this phenomenon. Conceptualizing crowd-sourcing as a technology of power demonstrates that crowdsourcing is a field of collision between different discourses of activity that deal with the construction of the "crowd" and the meaning of "sourcing."

This article has presented a theoretical, methodological, and practical contribution to the discussion of crowdsourcing. On the theoretical level, it introduces the concept of the "governance of the crowd," which allows us to conceptualize crowdsourcing as a field of struggle taking place between the actors who want to govern the resources of the crowd, and the members of the crowd who are interested in keeping control over the mobilization of their own resources and in maintaining an equal relationship with traditional institutions. From the institutional point of view, the emergence of crowdsourcing practices creates a dilemma. On the one hand, institutions can benefit from the additional resources of a crowd. On the other hand, the emergence of the crowd as a powerful actor threatens the capacity of traditional institutions to preserve a high degree of control over a situation. Accordingly, while both traditional actors and the members of a crowd can benefit from the development of crowdsourcing practices, the real outcome depends on whether the institutional actors choose to use these tools to integrate the crowd's resources or to contain them. While responding to this, challenge does not necessarily mean focusing only on the synergy or control of resources, finding a balance between controlling and using the resources of the crowd continues to be a major dilemma for policymakers.

On the methodological level, the article allows us to conceptualize the role of ICTs in the mobilization of resources as an object-oriented activity mediated through digital tools, where the tools give rise to a particular form of activity system. The framework for this analysis of crowdsourcing platforms as activity systems as well as the three elements of vertical crowdsourcing outlined above also make a practical contribution to policymaking. They allow us to identify situations where crowdsourcing projects are created with a primary goal of controlling the crowd—and where the engagement of crowd resources in order to achieve a common goal and increase the efficiency of resource mobilization has a secondary importance, and can therefore be used as a rhetorical facade in order to conceal the real intention. Accordingly, this article seeks to contribute to and inform the reflexivity of actors developing crowdsourcing projects.

The policy recommendations address a dilemma that commonly faces crowdsourcing projects with an institutional affiliation, and in particular projects initiated by state-affiliated organizations that seek to integrate the resources of the crowd with the resources of institutions, or to use the resources of the crowd for institutional purposes. On the one hand, while seeking to harness the crowd's resources, the traditional institution wants to maintain control over the crowd and the purpose of its resource mobilization. On the other hand, the top-down management of crowd resources and applying a hierarchical logic toward the implementation of a crowdsourcing project may lead to rejection by a crowd that resents being harnessed.

Accordingly, policy recommendations should address the question of how to maintain the sensitive balance between the desire to control resources and the need to develop a horizontal partnership with external actors, while providing a space for the members of the crowd to manifest their agency. The use of crowdsourcing platforms for the coordination of institution–citizen partnerships and the mediation of synergy, without trying to co-opt the crowd relies on five principles:

1. **Structure of subject–object relationships:** crowdsourcing projects should allow the subject of crowdsourcing (the crowd) either to participate in the definition of the object of crowdsourcing, or to select a specific object for the application of the resources. The administrators of the platform should be open to addressing the questions raised by the crowd and to revising the object of crowdsourcing as a result of interaction with the crowd. In other words, the structure of the platform should allow some degree of manifestation of crowd agency in the purpose of crowdsourcing and in the forms of crowd participation for the achievement of this purpose.
2. **Community boundaries:** The structure of the potential community whose resources are mobilized in order to address a crowdsourcing object should include a number of properties and combine these properties as a part of the crowdsourcing project. First, the community may rely either on individuals or on groups. Second, the community may be either bounded or unbounded. Third, the boundaries of communities may either be defined by an administrator, or emerge from the bottom, self-organize and preserve their independence by relying on group leaders. While all these strategies may be combined, finding the right balance between top-down management (and the restriction of community structures) and allowing the bottom-up emergence of community structures must play a key role in the successful synergy of resources.
3. **Division of labor:** The structure of the division of labor within the community of a specific crowdsourcing platform should avoid the mediation of thin participation and/or of community members' passivity. Any division of labor should allow a range of meaningful options for participation in crowdsourcing activity, although the definition of meaningful participation in crowdsourcing has a constructed nature and may be associated with the expectations of potential participants.
4. **Rules of activation** of the crowd, as well as the structure of decision-making and the identities of stakeholders (either top-down, or relying on local communities), should be clear to all members of the community around a crowdsourcing project.
5. **Transparency:** all the elements of the structure of a crowdsourcing platform, including its objects, community boundaries, division of labor and rules of activation, should be fully transparent to all the participants, accountable, and open to revision.

Although these findings rely on data collected in Russia, which has a specific political system, the analysis presented here holds value for any country. While the way digital tools are used by Russian institutional actors can be skewed toward efforts to maintain full control of crowd resources—and we can also see a significant polarization between state-affiliated and citizen-based crowdsourcing projects—what happens in Russia still presents one of the forms of the struggle over the crowd's resources that can be conceptualized through the notion of governmentality. The "governance of the crowd" dilemma of being caught between the desire to control the crowd and the intent to find an efficient strategy for mobilizing the crowd's resources can be found in different political systems. Future research should allow us to analyze the structure of activity systems mediated through crowdsourcing projects in countries with different political systems and different degrees of political freedom.

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Notes

1. Poster (2010) by Maria Zhalnina (http://design.zhalnina.com/#posters) used by kind permission of the designer.
2. One of the most notable arguments in this regard has been made by Manuel Castells in his concept of the "space of flows."
3. "Dobrovoletz" means volunteer in Russian, the literal translation being "a person with free will." A synonym of "dobrovoletz" commonly used in Russian is "volontyor."
4. The platform is located in the Cyrillic domain. The actual URL of the platform is доброволец.рф
5. Interviewee D. A representative of RosSoyuzSpas. Interview by the author. Audio recording. Moscow, September 12, 2013.
6. Interviewee A. An author of the Dobrovoletz.rf idea, professional firefighter, and emergency activist. Interview by the author. Skype recording. December 11, 2013.
7. Interviewee C. A head of team in the IT company that developed Dobrovoletz.rf. Interview by the author. Audio recording. Moscow, September 3, 2013.
8. Interviewee B. A senior manager in the IT company that developed Dobrovoletz.rf. Interview by the author. Audio recording. Moscow, August 31, 2013.
9. The project of the law N 300326-6 "About Volunteering" was submitted for consideration of the Russian Duma on June 21, 2013. The project was sent for revision. According to the official website of Russian Duma in June 2015 the project of the law was still under consideration: http://asozd2c.duma.gov.ru/main.nsf/%28Spravka%29?OpenAgent&RN=300326-6.
10. Interviewee F. A former official of the Ministry for Emergency Situations in the Moscow region. Interview by the author. Audio recording. Moscow, August 31, 2013.
11. Interviewee E. A moderator of an online volunteer firefighting community. Interview by the author. Audio recording. Moscow, August 30, 2013.
12. The author of this article took part in the development of the Virtual Rynda platform.

References

Asmolov, G. 2013. "Dynamics of Innovation and the Balance of Power in Russia." In State Power 2.0 Authoritarian Entrenchment and Political Engagement Worldwide, eds. M. Hussain and P. Howard. Farnham: Ashgate, 139–52.

Asmolov, G. 2014a. "Natural Disasters and Alternative Modes of Governance: The Role of Social Networks and Crowdsourcing Platforms in Russia." In Bits and Atoms. Information and Communication Technology in Areas of Limited Statehood, eds. S. Livingstone and G. Walter-Drop. Oxford: Oxford University Press, 98–114.

Asmolov, G. 2014b. "Virtual Rynda – The Atlas of Help: Mutual Aid as a Form of Social Activism." In Global Dimensions of Digital Activism, eds. E. Zuckerman and L. LeJeune. Cambridge, MA: MIT Center for Civic Media. http://book.globaldigitalactivism.org/chapter/virtual-rynda-the-atlas-of-help-mutual-aid-as-a-form-of-social-activism/.

Benkler, Y. 2011. The Penguin and the Leviathan: How Cooperation Triumphs Over Self-Interest. New York: Crown Business.

Bennett, W.L., and A. Segerberg. 2012. “The Logic of Connective Action.” Information, Communication & Society 15 (5): 739–68.

Brabham, D.C. 2008. “Crowdsourcing as a Model for Problem Solving. An Introduction and Cases.” Convergence 14 (1): 75–90.

Brabham, D.C. 2013. Crowdsourcing. Boston, MA: MIT Press.

Castells, M. 2007. “Communication, Power and Counter-Power in the Network Society.” International Journal of Communication 1: 238–66.

Engestrom,€ Y. 1987. Learning by Expanding: An Activity-Theoretical Approach to Developmental Research. Helsinki: Orienta-Konsultit Oy.

Estelles-Arolas, E., and F. Gonzalez-Ladron-de-Guevara. 2012. “Towards an Integrated Crowdsourcing Definition.” Journal of Information Science 38 (2): 189–200.

Foucault, M. 1982. “The Subject and Power.” In Michel Foucault: Beyond Structuralism and Hermeneutics, eds. H. Dreyfus and P. Rabinow. Chicago: University of Chicago Press, 208–26.

Foucault, M. 1988. “The Ethic of Care for the Self as a Practice of Freedom.” In The Final Foucault, eds. J. Bernauer and D. Rasmussen. Boston, MA: MIT Press, 1–20.

Foucault, M. 1991. “Governmentality.” In The Foucault Effect: Studies in Governmentality, eds. G. Burchell, C. Gordon, and P. Miller. Chicago, IL: University of Chicago Press, 87–104.

Foucault, M. 1993. “About the Beginning of the Hermeneutics of the Self.” (ed. M. Blasius). Political Theory 21 (2): 198–227.

Foucault, M. 2007. Security, Territory, Population: Lectures at the College de France, 1977–78 (ed. M. Senellart). London: Palgrave Macmillan.

Fuchs, C., and S. Sevignani. 2013. “What Is Digital Labour? What Is Digital Work? What’s Their Difference? And Why Do These Questions Matter for Understanding Social Media?” TripleC 11 (2). http://www.triple-c.at/index.php/tripleC/article/view/461.

Hewitt, K. 1998. “Excluded Perspectives in the Social Construction of Disaster.” In What Is a Disaster?: Perspectives on the Question, ed. E. L. Quarantelli. New York: Routledge, 75–91.

Howe, J. 2006. “Crowdsourcing: A Definition.” Crowdsourcing.com. http://crowdsourcing.typepad. com/cs/2006/06/crowdsourcing_a.html.

Kaptelinin, V., and B.A. Nardi. 2006. Acting With Technology: Activity Theory and Interaction Design. Cambridge, MA: MIT Press.

Leontiev, A.N. 1978. Activity, Consciousness, and Personality. Englewood Cliffs, NJ: Prentice Hall.

Litvinovich, M. 2011. “Russia: Reaching Out to the President.” Global Voices Online. http://global-voicesonline.org/2011/03/17/russia-reaching-out-to-the-president/.

Meier, P. 2013. Opening Keynote Address at Crisis Mappers 2013. http://irevolution.net/2013/11/20/ opening-keynote-crisismappers-2013/.

Meier, P., and C. Diane. 2009. “New Technologies in Emergencies and Conflicts.” UN Foundation Vodaphone Report. Unfoundation.org. http://www.unfoundation.org/news-and-media/publications-and-speeches/new-technologies-emergencies-conflicts.html.

Pelling, M., and K. Dill. 2006. ‘Natural Disasters’ as Catalysts of Political Action. ISP/NSC Briefing Paper 06/01. Chathamhouse.org. London: Chatham House. https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/International%20Security/bpresilience.pdf

Petrick, I., L.B. Erickson, and E.M. Trauth. 2012. “Hanging With the Right Crowd: Matching Crowdsourcing Need to Crowd Characteristics.” In Proceedings of the Eighteenth Americas Conference on Information Systems. AMCIS Paper 3. http://aisel.aisnet.org/amcis2012/proceedings/ VirtualCommunities/3/.

Prpic, J., and P. Shukla. 2013. “The Theory of Crowd Capital.” In Proceedings of the 46th Hawaii International Conference on System Sciences (HICSS). IEEE, 3505–14. http://ieeexplore.ieee.org/xpl/login.jsp?tp¼&arnumber¼6480268&url¼http%3A%2F%2Fieeexplore.ieee.org%2Fstamp%2Fstamp. jsp%3Farnumber%3D6480268.

Putin, V.V. 2012. “Demokratiya I kachestvo gosudarstva.” Kommersant-Daily. No. 20, February 6. http://www.kommersant.ru/doc/1866753.

Shirky, C. 2010. Cognitive Surplus: Creativity and Generosity in a Connected Age. New York: Penguin.

Surowiecki, J. 2005. The Wisdom of Crowds. New York: Anchor Books.

Vygotsky, L.S. 1978. Mind in Society: The Development of Higher Psychological Processes. Cambridge: Harvard University Press.

Ziemke, J. 2012. “Crisis Mapping: The Construction of a New Interdisciplinary Field?” Journal of Map & Geography Libraries: Advances in Geospatial Information, Collections & Archives 8 (2): 101–17.

Zuckerman, E. 2014. “New Media, New Civics?” Policy & Internet 6 (2): 151–68. http://onlinelibrary. wiley.com/doi/10.1002/1944-2866.POI360/abstract.

Appendix: Interviews

Interviewee A. An author of the Dobrovoletz.rf idea, professional firefighter, and emergency activist. Interview by the author. Skype recording. December 11, 2013.

Interviewee B. A senior manager in the IT company that developed Dobrovoletz.rf. Interview by the author. Audio recording. Moscow, August 31, 2013.

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Interviewee F. A former official of the Ministry for Emergency Situations in the Moscow region. Interview by the author. Audio recording. Moscow, August 31, 2013